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MEDICAL NOTES UPON THE ABORIGINES OF ALASKA.

Read before the Obstetrical Society, Oct. 8th, 1870, by D. F. Lincoln, M.D., Boston.

Before reading these "Notes," I would beg leave to acknowledge my indebtedness to Mr. W. H. Dall, who was so kind as to communicate them verbally to me, and who is my sole authority for the statements here made. But few of the facts here given are to be found in his work upon Alaska. Mr. Dall was in the closest personal relation for many months with the Indians of the Yukon River, from its mouth to Nuklukahyet, a distance of about 600 miles. With the Innuit (Eskimo) he was in less frequent contact.

Infanticide.—The country is incapable of feeding a large number of people, living in the savage condition. The chase and the fishery, as practised by them, furnish a very limited sustenance, and they have no other source of food. An Indian knows how much provision he can expect to collect in a year; beyond this amount he cannot go, and if his family grows beyond the limit of food-production, he naturally reasons, "Better let one live than two starve," and as a practical inference he proceeds to destroy his superfluous infant. This is done by exposure. The foundling is sometimes picked up by strangers, and brought up with care and kindness. But it is not fair to charge them with a want of natural affection; they are very kind to their children when living, and take good care of them. A girl-baby (as among the Chinese) stands a much greater chance of being exposed than a boy.

Children, though treated affectionately, are not longed for. As an almost invariable rule they are healthy, and do not appear to perish from the complaints usually incident to infancy. Their diet at first is exclusively the mother's milk, but when they reach the age of five or six months they are allowed a piece of fat meat to suck. Farinaceous food, the bane of civilized infancy, is, of course, out of the question with them. They sometimes die from an insufficiency of nutriment; for overwork, hunger and poverty will dry up the breast even of an Indian woman, especially if she be rather advanced in age. Mr. Dall noticed a few cases of convulsions, one resulting fatally; they occurred at from six to fourteen months of age, and were referable to no apparent cause except indigestion.

Fecundity.—The largest Indian family Mr. D. ever knew comprised six children. It is a universal rule, both with Indian and Innuit, that the family is small; it generally numbers from one to three children, and, beside this, an extraordinary proportion of their women are barren. He is unable to suggest the slightest explanation, either of the infecundity or the barrenness; unless, perhaps, the excessive toil, and the occasional starvation to which they are liable, be considered as causes.

Abortion.—He does not know of its occurrence as an accidental affair; and as to intentional abortion, or intra-uterine fœticide, it is not practised by the Indians. The Innuit, however, sometimes cause expulsion of the fœtus at about the fourth month, by forcibly kneading and compressing the uterus between the hands. He has known of two or three such cases. As to the use of instruments, such as bodkins or wires, the Indians are entirely too timid to venture upon such experiments. But a curious and remarkable exception to this timidity deserves mention here. It was the case of an Indian who was in imminent danger of death from retention of urine, owing to a stricture. After the retention had lasted two days, as a last resort they took him and performed perineal section, cutting open the urethra by way of the prostate. Their surgery had at least this recommendation, that it saved the patient; Mr. D. saw him a number of months later, in the enjoyment of good health. He was informed that the section was made in the median line, but they used no staff. They do not know of any mode of preventing conception. He is enabled to speak with confidence upon points of this sort, because he lived for months in Indian fashion, without meeting a single white man; and because they have not the idea of concealing anything of what we call delicate matters. A woman's confinement, for example, is not a reason for excluding any visitor, male or female, who may choose to look on.

Confinement.—As has been remarked, there is no mystery at all made of the act of parturition. Mr. D. has himself witnessed the entire process, from the commencement of pain till after delivery, and it did not last over half an hour. Indeed, they are usually sick a much less time. He has seen a woman leave a dog train, to which she was attached, go behind the bushes, and within half an hour rejoin the company, her new-born baby in her arms. When at home, the woman goes into a separate hut to be confined. Another woman accompanies her; the *accouchée* then gets on her hands and knees, while the *accoucheuse* kneels behind her, holding a piece of wood as large as a broomstick in her hands. This stick is passed over the belly so as to bear fairly upon the centre of the womb; the nurse then pulls with both hands, with all her might, while the patient holds back and pulls herself in the contrary direction. The baby comes very soon in answer to this rather urgent persuasion. A wooden trough, stuffed with moss, stands between the mother's knees, all ready to receive him. He is taken up, washed with their invariable substitute for soap—stale urine—and wrapt in a rabbit skin. Disagreeable as is this liquid soap, it certainly does its cleansing work as well as that manufactured by civilized men. The cord is tied in two places, and cut between. The child is put directly to the breast, and almost invariably finds his proper sustenance there at the first trial. The adult head is often asymmetrical, either from the mode of assisting delivery, or some other unexplained reason.

The woman always gets up in a very short time; Mr. D. has known but one woman who lay-in as long as two days, and in her case it was on account of other sickness.

They do not suffer from uterine complaints after childbearing. [In this respect they present a striking contrast with certain of the Indians of the Northwestern United States.] These remarks on childbed have a general application to the Innuit as well as to the Indians. Indians generally are destitute of fortitude in bearing even slight pain. But in confinement, there does not seem to be any actual pain to complain of.

Puberty, &c.—Mr. D. "hardly thinks he ever knew a case of the occurrence of menstruation under 14 years." From 14 to 17 is the usual age with them. They marry when full-grown in stature. As to the age of cessation of the menses, it is hardly possible to make a statement, inasmuch as the Indians do not know their own ages with any sort of accuracy, and their appearance is no guide whatever.

Marriage—consists simply in taking a wife and living with her. Among the Ingalick Indians there is a great horror of incest, and they extend the notion of kinship so far as to exclude even fourth or fifth cousins from marrying or any sexual relations. These Indians are continent, relatively to those of the Koyukon tribe and others further east; yet even among them a married woman is hardly thought less of from the fact of her having too easy virtue. If she goes astray her husband beats her, but the man is not usually meddled with; it is considered the woman's fault, as it was in the case of Adam!

CHRONIC SYNOVITIS TREATED BY TAPPING THE JOINT AND PAINTING THE KNEE WITH TINCTURE OF IODINE.

By JOHN HOMANS, M.D., Surgeon to the Boston Dispensary, the Carney Hospital, and The Childrens' Hospital.

S. S., a pedlar, 36 years old, presented himself at the Dispensary October 6th, 1870. His left knee-joint was greatly distended with synovial effusion, and measured four or five inches more than the right. He gave the following history of his case:

One year ago, without known cause, his left knee swelled and incommoded him for three or four days, and then got better. Since that time he has had three or four attacks, lasting from two days to a week; but the present attack, which began three months ago, has been more severe than any of the former ones; the knee has steadily increased in size, obliging the patient to lay by once in a while for a day or two. Lately he has had great difficulty in walking, and great pain at night, preventing sleep.

On examination, the left knee-joint was found to measure about five inches more than the right, and was distended with fluid, probably synovial. Later in the day I etherized him at his home, tapped the joint with a small trocar on its outer aspect, at a point about five inches from the extremity of the outer condyle, and drew off twelve ounces of clear, brownish, rather ropy fluid. The joint was tightly bandaged, and the patient kept in bed for four days; there was entire relief to the pain, no inflammatory symptoms, nor any constitutional disturbance. On October 12th, he began to paint the joint with tincture of iodine, as the effusion seemed to be increasing again. The next day he began to attend to his business, and has continued to do so since. On October 29th, the left knee measures half an inch more than the right; there is only a little fluid in the joint, and walking five hours a day causes no more uneasiness in one knee than in the other.

DEFECTS OF OCULAR REFRACTION, &c.

(Continued from page 343.)

Lecture III. Part II.—*Presbyopia.*

We have hitherto glanced at the principal general features of the subject. It is now time to look at some of the special defects which may be presented to the practitioner for treatment. The most frequently occurring of these is presbyopia.

Presbyopia results from a diminution of the accommodation. This diminution progresses physiologically with advancing years, and depends on changes in the lens-substance, which becomes harder with age. The accommodation begins to diminish in early life. This takes place in all eyes, but the emmetropic eye presents the typical form of presbyopia. The effect of this diminution must be to remove the near-point farther from the eye, so that an object can no longer be distinctly seen at so short a distance as previously. According to the position of the far-point, that is, according as whether the eye is hypermetropic, emmetropic or myopic, this progressive diminution of the accommodation will make itself felt earlier or later in life. In emmetropia the effect begins to be felt for the most part at about the age of 45 years, when, as is well known, many persons read easier by pushing off the book a little farther than the distance to which they have previously been accustomed. Such an eye may see well in the distance.

We must, however, remember that at about the age of fifty years there occurs a receding of the *far-point* so that an originally emmetropic eye becomes slightly hypermetropic. This so-called *hypermetropia acquisita* gradually increases so as to attain at 80 years the degree of from $\frac{1}{24}$ to $\frac{1}{10}$.

The gradual change in the accommodation is minutely described by Donders. In youth the emmetropic eye "sees small objects, by preference and without perceptible tension, at a distance of about six inches. At a later period, this distance becomes greater. * * * Thus the time approaches that close reading and working are attended with difficulty. Presbyopia thus announces itself. Seldom do we hear at the same time that work fatigues. The complaint is rather that vision is not accurate, &c."

Presbyopia being an affection of the accommodation, limits *the range* of distinct vision, but does not diminish the acuteness of vision. The latter should be normal to the age of the person; otherwise we must look for some other defect besides what is remediable by spherical glasses, such as astigmatism, opacities of the media, or disease of the fundus oculi, &c. If we designate a patient as presbyopic, without further statement, we understand him to be emmetropic, or at the most as having hypermetropia acquisita, and suppose him free from other disease or defects of the eye. If hypermetropia, myopia, astigmatism, or any disease of the eye were present, it should be stated, being more important than the simple limitation of the range of accommodation.

We must, in considering any particular case, remember other affections which cause the binocular near-point to recede; such as insufficiency of the interni, or weakness of the accommodation resulting from disease, as after diphtheria, scarlatina, measles, or after hæmorrhage, and also glaucoma. Hypermetropia, if present, must be recognized, as it, also, indirectly, affects the near-point.

"The term presbyopia is, therefore, to be restricted to the condition in which, *as the result of the increase of years*, the range of accommodation is diminished, and the *vision of near objects* is interfered with."

As the diminution of the accommodation has been going on from an early period of life, the question naturally suggests itself, when shall it be considered that the defect called presbyopia begins? In the case of emmetropia, it might be said to commence when, from the cause mentioned, a person begins to have difficulty in reading or sewing, or the like near work, at the distance to which he has previously been accustomed, but finds it easier when the work is farther off. Donders defines it to begin in emmetropia when the binocular near-point is as far off as 8 inches. We must distinguish between the near-point and the reading distance. The latter must, of course, be farther off (if there is any extent of range of accommodation at all) than the near-point, for the effort of accommodation cannot be maintained for a long time at its maximum.

Donders measures the amount of the presbyopia by the lens-interval, to use such an expression, between the binocular near-point and the point 8 inches distant from the eye; that is, the lens which would bend rays from a point at 8 inches distance to directions as if they came from the near-point. For instance, suppose the near-point at 12 inches. Then the amount of presbyopia is *conventionally* $\frac{1}{8}-\frac{1}{12}$, equal to $\frac{1}{24}$. As the standard, 8 inches, is arbitrary, this measure of presbyopia is less important than that of the degree of myopia, or of hypermetropia.

With regard to the remedy for presbyopia it consists, as is known, in appropriate convex glasses. We have seen that the selection of the glass must depend in part upon trial. Donders gives in a table " the empirical result: what glasses are required at different ages in emmetropia, with normal acuteness of vision and accommodation, for writing, and for reading ordinary type."

	Focal Distance of Glasses required.				
a	*b*	*c*	*d*	*e*	
Age.	In present E.	In original E.	Distance of Distinct Vision.	R_2	P_2
48	60	60	14	60	10
50	40	40	14	40	12
55	30	28	14	30	12
58	22	20	13	22	12
60	18	16	13	18	12
62	14	12	13	14	12
65	13	10	12	13	11
70	10	7·5	10	10	10
75	9	6·5	9	9	9
78	8	5·5	8	8	8
80	7	4·5	7	7	7

I have written in columns *b* and *c* the focal distance of the glass instead of 1 divided by the focal distance. The numbers in columns *b*, *c*, *d*, and *e*, represent inches. E stands for *emmetropia*; R_2, for distance of *binocular far-point;* P_2, for that of *binocular near-point.*

"This table needs, perhaps, some explanation. Column *b* gives the glasses required for E, proved at the moment; *c* for E in youth, and therefore for H (hypermetropia) acquisita at the time of observation; in both cases the diminished acuteness of vision belonging to the time of life is taken into account; *d* indicates the distance which is preferred for vision with these glasses; *e*, finally, the space through which they admit of acute vision," &c.

It may be noticed that corresponding to the diminished acuteness of vision, the preferred distance of distinct vision with the glasses is 7 inches at 80 years, while it is 14 inches at 48 years. That from 50 to 62 years the binocular near-point with the appropriate glass is 12 inches. That from the age of 70 to that of 80 years, the range of accommodation is reduced to zero.

"The above table holds good for emmetropic individuals. If ametropia be present, it must be taken into account. Therefore, always without exception we should begin by determining the refraction, and at the same time S (the amount of vision)," &c.

"If the eye be emmetropic, the control (the test) is effected with the glasses mentioned above in column *b;* we ascertain at what distance 2 and 2½ (Snellen's letters) are easily and by preference read, and we determine the space of the binocular range of vision by causing the patient to read 1 or 1½ as close as possible, and larger type as far as possible. If we now obtain about the results to be found under *d* and *e* of the table, the glasses will usually answer. If the distance be too short, the margin for distinct vision too small and brought too near the eye, we must try weaker, and in the opposite case, somewhat stronger glasses."

This table is made on the supposition that the accommodation and visual acuteness are normal to the age of the patient. But they might not be so. The accommodation might be less; in such case a different glass from that given in the table would be required for exact focusing on the retina. If the diminished accommodation were connected with active disease of one or both eyes this latter would contra-indicate prolonged use of the eyes, especially on near objects.

Also the vision might be less than normal to the age of the patient. This admits sometimes of being partially remedied by stronger glasses which magnify more. If, however, it were owing to active disease of one or both eyes, this would contra-indicate their prolonged use.

Another variation from the glass of the table might arise from the particular kind of work, which might be very fine and require to be nearer to the eyes. Stronger glasses would then be needed, and to obviate somewhat the strong convergence, they might be combined with prisms with angles outwards. Prisms of not quite 4°, one before each eye, would allow an object, while at 9 inches, to be seen with a convergence to 12 inches; that is, the object might be brought up from 12 inches to 9 inches without increasing the convergence.

Also some work requires a special distance, such as reading at a desk or reading music, where "it is often desirable that spectacles should bring the distance of distinct vision to one and a half or two feet, and therefore weaker glasses are necessary than are given for writing, and particularly for reading."

Donders considers that a *hypermetropic* eye becomes *presbyopic* so soon as *with the use of the glasses which neutralize the hypermetropia* the binocular near-point lies farther off than 8 inches. In such case the two defects must each be corrected.

Myopic eyes are *presbyopic* when the binocular near-point is farther off than 8 inches.

If an eye is myopic, say to the degree $\frac{1}{20}$, it may be regarded, for our present purpose, as though it were emmetropic with a convex glass $\frac{1}{20}$ placed before it (neglecting the distance between the glass and the eye). Such an eye we should expect would not require any correction for its diminishing accommodation till after the time when an emmetropic eye would require glass $\frac{1}{20}$ for its presbyopia, and this time, according to the table, is the age of 59 years. Similarly at a subsequent period, after the myopic eye has become presbyopic, we may first try a glass less by the amount of the myopia than the glass which would suit an emmetropic eye of the same age.

Donders remarks, however:—"Generally speaking, I have found that myopics require convex glasses at a still later period than the degree of M (myopia) should have led me to expect, and that the glasses required for emmetropics admit of a still greater reduction than that indicated by the degree of myopia."

"A UNIQUE CASE OF CONGENITAL MALPOSITION OF THE BLADDER."

THIS is the extraordinary title of a paper describing what appears to have been a common case of exstrophy or extro-version of the bladder, with an extraordinary operation, an account of which was read at the last semi-annual meeting of the Minnesota State Medical Association, and published in the *Northwestern Medical and Surgical Journal* by Alexander J. Stone, M.D. The condition of the parts did not materially differ from that usually found in the lesion mentioned. There was complete epispadias. In front of the usual situation of the bladder the integument was wanting, and its place was supplied by the posterior wall of the bladder protruded by the pressure of the abdominal viscera behind it. A "pear-shaped" tumor was thus formed, the surface of which was of a "dull red color" and displayed "a few 'threads' of an apparent ropy mucous secretion." But Dr. Stone erroneously supposed he was dealing with an entire bladder; he says:—"I diagnosed the tumor to be the bladder escaped through a fissure in the median line before birth, thinking that as the child grew in size the bladder increased correspondingly, and the fissure had gradually contracted, until it was impossible for the child, by muscular effort, to reduce the hernia so fully as it could immediately after birth." Instead, therefore, of attempting to perform the modern operation of covering the exposed mucous surface by means of cutaneous flaps reflected from the surrounding tissues, and so forming a new anterior wall to the bladder, he seems to have contrived a most extraordinary method of procedure. Always with the belief that he was dealing with the whole bladder instead of its posterior wall only, he cut this away from the anterior abdominal wall, making a large hole into the abdomen, through which the intestines protruded. In a second step of the operation he put this fragment of bladder, with its ureters attached, and from which "the urine was continually running," back into the abdomen among the intestines, and, as a third step, sewed up the abdomen, so that the entire peritoneal cavity was ingeniously transformed into a bladder, the urine bathing the intestines. It is presumed that the artificial bladder, thus lined with a serous membrane, was intended to offset the remarkable anatomical discovery, verified as the writer says by the microscope, that the bladder in this case, before the operation, had a mucous membrane on its external surface? Under these circumstances the child died. The reviewer can only remark, in the words of the author, "without making any comments on the above case, or attempting to theorize, I submit the simple facts of this most unique case to the profession." H. H. A. B.

Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON. SECRETARY, DAVID F. LINCOLN, M.D.

JUNE 11th, 1870.—The Society met at the house of Dr. Lyman, at 7½, P.M.; the President, Dr. Buckingham, in the chair.

Dr. Reynolds mentioned the case of a woman, who had taken ʒiiss. of fluid extract of ergot, in order to produce abortion. He inquired how much members were in the habit of giving to produce its legitimate effects.

Dr. Cotting formerly gave with good effect the infusion made from one drachm of the fresh powder; a teacup of boiling water was poured over it and let stand a few minutes, the powder settling to the bottom, and the clear liquid was given at one dose. Latterly he had sometimes given a drachm or more of fluid extract, but felt it to be less reliable than the infusion described.

Dr. Buckingham remarked that Dr. Channing used the same amount, but *stirred* the potion, and gave but one-third at once.

Dr. Ayer used to follow Dr. Channing's plan, and got more decided results than from the fluid extract; but now employs the fluid extract, finding it reliable in its effects, and less violent in its action.

Dr. Treadwell related the following case:

A young woman, who had had two or three abortions, attended by severe vomiting, increasing in violence in each instance. A year ago he saw her; she was much prostrated from excessive vomiting. An attempt at abortion had been made three weeks previously. The injection of warm water into the uterus through a catheter brought away the dead ovum at the end of twelve hours. Two months ago, being three months pregnant, and suffering from severe vomiting for six weeks, the prostration had become so extreme that, upon consultation with another gentleman, it was deemed advisable to induce labor. A sound was passed, which effected nothing; warm water was injected without avail. Sea tangle and sponge tents were employed, and, finally, at the end of a week, labor was brought about, but not until the patient had nearly succumbed to the vomiting. The os was dilated with the fingers, it being down to the vulva, and the ovum was removed with placental forceps. Complete relief to vomiting. Ether, given sparingly, quite stopped the uterine contractions.

Dr. Putnam related a case of miscarriage of twins at the 5th month, followed by extreme prostration without hæmorrhage. The patient was of a full habit—the mother of three children. She had miscarried twice within two years; otherwise healthy. Having had a slight "show," was advised to keep perfectly still, and partake moderately of vegetable food only. She remained in bed three weeks; had slight "show" occasionally, but no pain. At this period pains came on; the funis, head and both hands presented. The labor lasted six hours. The next morning, awoke exceedingly prostrated. Very pale; pulse 130–140, scarcely perceptible for three hours; respiration 50. Got brandy and other stimulants, and in the course of the day beef tea and champagne. Thirty-six hours afterwards, uterine pain recurred, and a cylindrical body, 4 inches in length, and ¾ of an inch in diameter, was discharged, which proved to be another placenta and ovum of about six weeks. No hæmorrhage; urine not albuminous.

During the next fortnight, remained feeble; pulse 120–130; respiration 50; mind confused; hallucination, especially on first waking. She gradually but perfectly recovered under full diet of meat and stimulants.

Whatever else may have contributed to the nervous prostration, Dr. Putnam considered the chief cause, in the present instance, to have been the deprivation of animal food in a constitution largely dependent upon it.

Dr. Wellington related two cases of puerperal convulsions, which he had lately seen.

I.—The patient had been twenty hours in convulsions when first seen in consultation. Primipara. Os undilatable, an inch in diameter. Extract of belladonna appeared to be of service in relaxing the os, and delivery was effected by turning. Ether had been freely used without much effect. Patient remained unconscious, and died the next morning. She was very dropsical.

II.—Seventh month. Abdominal pain and vomiting, resulting, as she thought, from eating Norfolk strawberries. Some headache; face and hands swollen; urine albuminous. Vomiting, and pain in abdomen, relieved by a cathartic. Three days after, the headache still remaining, she was seized during the forenoon with convulsions, which continued, at intervals, until 12, P.M., when they ceased. They were much relieved by ether, which was given freely. Urine was muddy, and in amount about twelve ounces in twenty-four hours. No signs of labor. After six days, during which the albuminuria continued, with heaviness, double vision at times, and slight headache, but without labor pains, the membranes were ruptured. Labor came in a few hours, and a living child was born, weighing four pounds. The œdema gradually disappeared, and the urine lost its albumen. A state supervened resembling puerperal mania. There was occasional irrationality, with bad dreams, and delusions having reference to homicide. Patient took no interest in her baby, and once or twice intimated that she thought it her duty to kill it. This state of mind continued three weeks, and was succeeded by an attack of crural phlebitis, from which she slowly recovered.

During the convulsions, she took ten grains of calomel, with sugar, as a cathartic, which salivated her. Subsequently, she had bitartrate of potash, and bromide of potassium. Later, iron was administered. She was a delicate woman, and not a subject for active treatment.

Dr. Putnam. Bleeding would have been useful; pregnant women bear it well. Dr. P. had no doubt that he often prevented miscarriage by venesection to the amount of three or four ounces.

Dr. Lyman would induce labor in such cases, if they had passed the seventh month. Thinks the chances of recovery would be increased by so doing.

Dr. Buckingham had seen recovery take place in a very large majority of his cases of convulsions, associated with albuminuria. He had never had but one case of puerperal mania, with albuminuria; in this case chloral was administered on two successive nights, but the patient was worse on the two mornings after the medicine was given. The relation of anasarca to convulsions was not well understood; if it extended above the waist, the probability of convulsions was very great.

Dr. Cotting presented the following results of experiments made for him by a reliable apothecary, the object being to ascertain the size of the drop of different fluids; the experiment consisted simply in letting thirty drops fall into a minim glass, and measuring the number of minims.

	When dropped from a		
	Shop-bottle.	1 oz. vial.	4 oz. vial.
30 gtt. tinct. opii	= 15 min.	20 min.	15 min.
(2d trial)	= 15 "	15 "	15 "
30 gtt. tr. acon. rad.	= 15 "	17 "	17 "
(2d trial)	= 14 "	12 "	15 "
30 gtt. vin. colch. rad.	= 20 "	20 "	20 "
(2d trial)	= 20 "	20 "	17 "
30 gtt. filt. rain water	= 30 "	30 "	30 "

Dr. Clarke remarked that most minim-measures in this country were more or less inaccurate, but that perfectly accurate ones were to be had from England.

Dr. Reynolds opened the subject of the prevalence of criminal abortion, by describing a recent case in which he had been called upon to save a woman, whose condition had become too critical for the abortionist to manage. It is his belief that the practice prevails to a hundred times the extent that it did thirty years ago. This statement, perhaps, ought to be qualified, by leaving out of consideration the refined and wealthy classes.

Dr. Cotting's views differed from those of Dr. Reynolds. He did not believe there had been much change in this respect within a generation. He thought there were as many women who longed (though in vain) for the legitimate fruit of their marriage, as there were of the class who tried to shirk the necessity of bearing living children.

Dr. Buckingham remarked that the populace seem to have the idea that Simpson's sound *was* designed to procure abortion. He commenced practice in 1844, and during the first two or three years he did not see one twentieth as many cases of intended abortion as he now is accustomed to find in a corresponding number of patients. It was true, he no longer had to treat the poorer class of patients to the same extent as then; but he was sure that at that time it was exceedingly rare to find a Roman Catholic Irish woman who was a strumpet, or who practised intentional abortion, while at the present time neither circumstance was at all uncommon among the same class, within his own observation.

As an illustration of public indifference to the crime of murdering children before birth, Dr. Reynolds had been recommended, by a *woman* who was selling him a "fountain syringe," to buy a certain appendage, as better than another for the purpose of procuring abortion. "But perhaps," added the woman, "you don't approve of that?" The families who resort to this means of preventing conception, or who procure the destruction of infants after conception, are not, in his experience, the vile and degraded, but far oftener prudent and thrifty young people; their excuses for these crimes are, as a rule, utterly frivolous. He believes few persons appreciate the extent to which the conscience of the community has been demoralized by the permitted free sale and the habitual reading of so-called "physiological" books. In his judgment, a woman who has entered into marriage can only demand from her husband kindness, decency and temperance in his relation to her. Thus respected by him, she has no right to resist the birth of children, unless she can show, to the satisfaction of competent medical authority, that she is plainly unable to bear them.

Dr. E. H. Clarke thought the statements so frequently made concerning American women were indiscriminate. In his own experience he had met with women who desired to regulate their diet and habits in such a way as to have *as many healthy children* as possible, but who wished to know what he considered the proper interval, *in their own cases*, at which to bear children. He also was consulted, not infrequently, by young unmarried women who wished to be assured, before marrying, that it was safe and proper for them to bear children; and who said to him that they would refuse to marry, if he gave them a decided negative answer. Such views and conduct he considered to be praiseworthy.

Dr. Reynolds, in reply to Dr. Clarke, did not believe that excluding the cases of evident unfitness for childbearing on account of disease, physicians have, or are ever likely to gain, power to answer such questions as those just described. The very persons whom many a physician would pronounce unsuited to bear or to beget offspring, from hereditary defects of constitution or from acquired feebleness, are in many instances parents of happy and sufficiently healthy children. Moreover, what right has such an adviser or such a parent lightly to value the immortal hopes which the shortest earthly life makes possible, or to overlook the preëminent mental and moral endowments with which Heaven often compensates bodily weakness. Had such a Spartan policy always prevailed, the world would have missed the services of many a great name. Macaulay's birth would perhaps have been interdicted, and very probably Dr. Samuel Johnson's. Carcinoma having appeared in the family of Charles Bonaparte, Napoleon and his gifted brothers and sisters might have fallen under the ban of an intelligent modern reformer. Philip Doddridge, so puny an infant that his chance of life was thought nothing worth, the successor of fifteen dead brothers and sisters, would certainly have been condemned.

Childbearing is always a sore trial. One only thought can make it endurable—that this bitter suffering is not the work of man's tyranny, but was appointed ages since by Him whose love and tenderness know no limits.

Several other gentlemen expressed their belief in the great frequency of criminal abortion at present.

Dr. Clarke admitted that our knowledge of these subjects is still far from perfect. Some things, however, in regard to them, we do know; as, for example, that healthy parents are more likely to have healthy offspring than unhealthy parents; that children with healthy bodies are more likely to have well-balanced minds than those with diseased bodies, &c. More we may learn by diligent observation and study. Such study is certainly our duty. The endeavor to regulate the birth of children, with the object of producing the most perfect offspring, is as commendable in the case of man as in that of the lower animals.

Other gentlemen concurred in his views. The meeting then adjourned.

Selected Papers.

A NEW VIEW OF THE ORIGIN AND PROPAGATION OF THE VENEREAL DISEASE AND ITS SUCCESSFUL TREATMENT BY INOCULATION WITH VAGINAL DISCHARGE.

Mr. J. Morgan, Surgeon to Westmoreland Lock Hospital, Dublin, expresses some novel views on this subject in a paper published in the No. of the *Dublin Quart. Journ. of Med. Sciences* for August last. These views, he says, are the deductions from 1582 cases observed by him during the last two years in the hospital to which he is attached, and which indicate a new source of contagion from which the usual soft or chancroid venereal sore is derived.

"The discrepancy," he remarks, "among syphilographers as to the variations in the forms of the disease and its after consequences in the male and female, always seemed difficult of explanation, and led me to make a close examination by experiment as to its nature and origin in the patients under my charge at the hospital as compared with male patients met with in private and general hospital practice. I could not fail to observe that in this city, the frequency of chancroid or soft sores in the male uncomplicated with constitutional signs, was excessive in proportion to those cases in the female who suffered from genital sores, while on the other hand the frequency of constitutional symptoms in the female was excessive in proportion to the male."

The frequent coexistence of a vaginal discharge of a muco-purulent form with the earlier stages of constitutional syphilis, he thought afforded some clue to the solution of this question, and led him to make some experiments, the result of which, he thinks, shows "that the product of the vaginal discharge of a patient suffering from syphilitic infection, is a chancroid or soft sore, when the discharge is introduced under the skin or applied to an abraded surface. It is also shown that this sore is propagated as a chancroid or soft sore, and is again (so far as my experiments went) capable of indefinite propagation still as a soft sore or chancroid."

"A more remarkable power," he says, "possessed by this vaginal secretion is the production of a chancroid by inoculation on the patient's own person." * * * * "I have on several occasions taken the secretion as wiped from the os uteri and inoculated unsuccessfully with it, while from the vaginal discharge I have been successful.

"I have inoculated from the vaginal secretion of cases of uterine ulcer and from the ulcers themselves without any result.

"I have also inoculated the gonorrhœal discharge of the male without result.

"In all my inoculations the result has invariably been the characteristic pustule and soft or chancroid sore, capable of reproduction; the question therefore arises, was the original affection a chancroid or soft sore, capable of infecting the system, or a hard sore, which is admittedly so capable; I cannot give any information on the latter point, as unfortunately in the only two cases of hard sore which have been admitted to the hospital during the last eight months I did not inoculate. So as to be capable of transmitting a sore by inoculation from the vaginal secretion it seems necessary that the patient must be suffering from the earlier stages of constitutional infection, whether as yet latent or developed."

The vaginal secretion, Dr. M. states, retains its power of infection for a considerable time after the healing of the primary sore or of the first constitutional evidence.

In all the inoculations made by Mr. M. the product from the artificially generated chancroid was, he stated, a chancroid, though generated from and on syphilitic subjects.

"With regard to the propagative property of the poison in women, it might be supposed that once the sore is healed there is no further danger of a sore being communicated, while even a chancroid, as I believe it might appear in an untainted subject, would be lethal to the system by conveying the syphilitic poison. This error the illustrative cases show fully would be a serious one, as the non-existence of a genital sore in the female is no absolute guarantee of the non-existence of contagion power."

Mr. M. has found the following variations in inoculation with the vaginal discharges:—

"The activity of the discharge seems to vary—thus, immediately before or after the menstrual period it is less active.

"The same discharge would succeed in some cases and not in others, and though failing to produce a specific pustule one day it would not on another.

"As in vaccination, the admixture of a little blood in making the inoculation generally rendered it nugatory.

"The more robust and vigorous the patient, the more perfect was the inoculation, and the more persistent it became, being indeed difficult to heal.

"Every succeeding generation from the vaginal discharge seemed progressively to increase in inoculative power.

"The more infected the recipient the more difficult to inoculate, and the greater the tendency to heal.

"Every succeeding inoculation on the patient's own person seemed to increase in inoculative power."—*American Journal of the Medical Sciences.*

Dr. Brown-Sequard, at the recent meeting of the British Association for the Advancement of Science, showed among other things that epilepsy, traumatically induced in the guinea-pig, could be transmitted to its offspring.—*N. Y. Medical Gazette.*

ON THE APPLICATION OF CARBOLIC ACID AS A LOCAL ANÆSTHETIC IN SURGICAL OPERATIONS.

By J. H. Bill, M.D., Surgeon U. S. Army.

In conducting some investigations on the action, &c., of carbolic acid, the writer has made the following observations, which, as they seem to be of practical importance, he communicates in advance of the other results:—

All who have handled this substance must have noticed the tingling sensation (not unlike that produced by aconite) in the finger tips and other parts touched by the acid, which presently passes into a greater or less anæsthesia. On trying to determine the amount of this anæsthesia with an ordinary æsthesiometer it was found not only impossible to distinguish two points, however widely separated, but even to recognize the presence of one.

The prick of the point was not felt at all as pain, nor was an incision productive of uneasiness. The experiment was, therefore, extended thus: The radial side of the writer's left forearm was covered with a cloth soaked in a saturated solution for half an hour, then a streak was traced over the course of the radial artery with a camel's hair brush dipped in acid liquefied by one-twentieth bulk of water. This streak extended from the styloid process to near the elbow, and after a few minutes was rubbed off. An incision was then made with a common scalpel from a point about two inches above the styloid process towards the internal condyle for five inches, occupying as near as possible the middle of the streak made with the brush, and extending down to the fasciæ investing the flexor muscles (superficial) of the thumb and fingers, so that at its lower extremity the radial artery was exposed and could have been ligated. This incision was unattended with pain, save where nerves distributed to or passing over the muscular fasciæ were pricked or divided, and even in this case the pain was not at all unbearable. *The incision of the integument was painless*, and the writer would have been unconscious of the injury save from the sensation communicated to his hand holding the knife as it was drawn through the tissues. This observation or experiment was made nearly a year ago. It was applied practically at once to all minor cutting operations. The writer has not incised a felon or bubo since without successfully employing this method for preventing or greatly mitigating pain. Many cases could be given, one will suffice. David Harris, of Vancouver, applied with his second finger of the left hand highly inflamed from a felon, the parts much injured by burrowing of pus. A previous felon had been treated on another finger a few months before, and the requisite incision had given him exquisite pain; the patient therefore apprehended great suffering from any operation on the finger now diseased, and begged for chloroform. However, the finger was soaked for fifteen minutes in warm water containing three per cent. of carbolic acid, dried, and then a brush, dipped in the concentrated acid, drawn over the finger in the course of the intended incisions. These, two in number, were then made, using a thin edged scalpel by a slow sawing motion, allowing only the weight of the knife to make the cut. The patient stated that he had suffered no pain, or not more than would have resulted from handling the parts. The parts healed at once. Sometimes it is necessary after making an incision nearly through the integument, if sensibility becomes apparent, to brush out the wound made with some liquefied acid before extending the incision deeper. This was necessary in a palmar abscess treated by this method without pain. The writer has excised a small tumor partly by this plan. Buboes have been operated on painlessly, and, in short, the writer can recommend the plan in any cutting operation where no dissection of the skin is involved, and where all the pain results from the cutting of the skin. It is hoped that it will be of special service to those who are compelled to operate without an assistant. The writer was thus compelled this summer to remove from his right hand, by an incision of over two inches in length, a large wooden splinter which had been thrust through the palmar fasciæ, and had lodged under the tendon of the lumbricalis of the index finger. It was done without pain, save where a nerve was divided. The incision healed without scar.

These facts, which the writer believes he is the first to point out, have theoretical relations of great interest which may be discussed in a future paper.—*American Journal of the Medical Sciences.*

THE ORIGIN OF SPECIFIC DISEASES.

Messrs. Editors,—I hope you will find space in your columns of "Selected Papers" for the extract I send you from a recent letter to the *British Medical Journal*, from Dr. Samuel Wilks, Physician to Guy's Hospital, London, on "The Origin of Specific Diseases." Let those who are ever ready to ascribe every outbreak of typhoid, choleraic or other epidemic diseases to supposed or imagined defective drainage, impure water, or foul smells, either or all, as chance may grant, ponder well Dr. Wilks's very sensible suggestions.

Yours, Medicus.

"In Prof. Huxley's address at the British Association, on spontaneous generation, he rightly includes in the large field of nature over which he casts his eye some matters pertaining to pathology. His own opinion clearly leans towards the old and prevalent doctrine *Omne vivum ex vivo;* and he endorses by the weight of his name the experiments of Pasteur and his followers. Knowing what the normal mode of production is, he would leave the burden of proof of the spontaneous production of living matter with his opponents; and I think we may be well satisfied to witness it in the hands of such an able 'abiogenist' as Dr. Bastian. Similar arguments the Professor would apply to the case of the contagious or specific diseases; and accordingly the *onus probandi* lies with those who believe that such affections can arise *sui generis.* I cannot at this moment lay my hands on the writings of any author who distinctly asserts the truth of the doctrine; but, judging from the observations of many in our profession, it might be thought that such does extensively prevail. I believe, as regards typhus fever, that an opinion of its spontaneous origin from overcrowding does exist largely amongst medical men; and, as regards scarlatina, the importance attached to bad drainage at Guildford and elsewhere would lead to the belief that not a few in the profession consider that some of the ordinary circumstances around us are sufficient to develope it. If I remember rightly, this was asserted in a public paper by a surgeon at Croydon, who stated that he had seen the disease arise in an isolated cottage, and induced by a neighboring cesspool or dunghill. Even syphilis, I have heard stated by two gentlemen examined at the Admiralty Committee, will spring up spontaneously from promiscuous sexual intercourse. I do not know that any medical man has assented to the strongly expressed opinion of Miss Nightingale, that smallpox can arise from bad sanitary arrangements.*

"Let us see what are the arguments for the existence of a specific poison in this class of diseases. The term poison is used, because a person affected with a specific contagious disease has that in his system which, if transplanted, will produce in another as certain and definite effects as if the latter had swallowed an animal or a vegetable poison. At well defined periods, results are seen in the body so characteristic that the nature of the infecting cause is at once recognized. Seeing that the matter or blood from a variolous or a scarlatinal patient is capable of producing exactly the same effects in a healthy person, we must feel sure that a something having specific qualities has been conveyed from the one to the other. Whether this something will be found to consist of living germs, as Dr. Burdon Sanderson's observations tend to show, is now a question of opinion; but there are many who think that the day will shortly come when we shall be capable of seeing the typhine or cholerine enclosed in a bottle. In the case of every weed found in a newly made garden, we believe that the seed was first implanted there; and so, from all analogy, we consider that in every instance of a specific disease a microzyme must have been introduced from an extraneous source. Dr. Huxley evidently thinks that the analogy holds good; and thus we should be content to rest upon the conviction that, in every case of so-called specific disease, the complaint has been 'caught'; and, if we are not able to prove it, we ought to assume it, and let the *onus probandi* lie with those who deny it. Since all reasoning would lead us to assume the origin of living matter from germs, we are content to believe in the commonly accepted parentage of all animal and vegetable forms which surround us. That they ever have any other origin, or can arise spontaneously, must be shown to be true by those who have reason not to be satisfied with the current opinion. So it rests with the abiogenist in our profession, or the man who believes in the spontaneous origin of scarlatina or such like disease, to act with as much care as Dr. Bastian has done, and be sure, when he thinks he sees an example of the complaint spontaneously arising, that every possible source of contagion has been excluded. Until he shows this, the universally contagious theory must still be held. The question, then, of the spontaneous origin of the usually called specific contagious diseases ought to be no more an open one than the more general *questio vexata* of spontaneous generation. As regards the latter, the world is content to hold a certain opinion until it be found to be false; and so in like manner the medical profession may safely hold to the idea of only one parentage of the exanthemata and other specific diseases, until facts are forthcoming to prove their spontaneous growth. If the analogy holds good (and I believe it does) between these diseases and the phenomena of animal and vegetable life, we must assume that in every instance the complaint has been 'caught'; and we shall be then in a better position to discover what we understand by the influence of bad drainage and other defective sanitary arrangements."

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* "I was brought up both by scientific men and ignorant women distinctly to believe that smallpox, for instance, was a thing of which there was once a first specimen in the world, which went on propagating itself in a perpetual chain of descent, just as much as that there was a first dog (or a first pair of dogs), and that smallpox would not begin itself any more than a new dog would begin without there having been a parent dog. Since then, I have seen with my eyes and smelt with my nose smallpox growing up in first specimens, either in close rooms or in overcrowded wards, where it could not by any possibility have been 'caught,' but must have begun. Nay, more, I have seen diseases begin, grow up, and pass into one another. Now dogs do not pass into cats."—*Notes on Nursing.*

Bibliographical Notices.

*The Physician's Prescription Record, * * * with Forms for Record of the Condition of the Patient and copy of Prescription.* Philadelphia: S. W. Butler, M.D. 1870.

Dr. BUTLER has put into handy form an idea which doubtless has puzzled many a member of the profession, viz., a method of retaining a copy of every prescription given in the course of his daily visits. A bound volume, which is sold at one dollar, contains 400 blanks, each of which can be used as a daily record of the prominent symptoms of the patient visited; in addition, a blank prescription paper is attached, punched around its edges, so as to be easily detached, and a space below suffices for a copy of the same. In fact, the prescription book of Dr. Butler is a good thing and will be useful to many.

It is a matter of importance to preserve *every* prescription which is written. It may be desirable to use the same form of medicine at months' or years' interval; it may be essential for reference in case of legal proceedings; or it may be found useful in drawing up the history of a case. At any rate, if a physician keeps no case book, he should at least keep a prescription record. If it becomes necessary to remember the prescriptions and copy them at home, they will practically never be copied; if they are to be copied from one slip of paper to another, they will surely be lost; but if physicians oblige themselves to *make up* their prescriptions, with all the mistakes and the calculations which may be necessary, on the retained portion, and then copy them fairly on the paper which is given the patient, only under such circumstances will the majority keep copies of their prescriptions.

We consider the form of Dr. Butler a very excellent one; yet we have ourselves long used a similar, but as we think, much more handy form, in which we can copy the recipe and all other notes on a retained "stub" for future reference.

Prescription and Clinic Record. Sixth Edition. New York: W. Wood & Co.

A RECORD book of similar character to that of Dr. Butler has been sent us by the publishers. In addition to the conveniences afforded by the former, this publication embraces a number of tables of more or less clinical value.

Physician's Visiting List for 1871. Philadelphia: Lindsay & Blakiston.

WE welcome once more our little pocket companion for the year. We could not be without it; for it is not only a constant reminder of our daily duties, but, in addition, furnishes opportunity for those professional memoranda which are essentials in every one's practice. It is for sale by A. Williams & Co., 135 Washington St.

Archives of Science and Transactions of the Orleans County Society of Natural Sciences. Newport, Vt.: J. M. Currier, M.D.

A QUARTERLY journal of science with the above title was commenced in July last. The first number has found its way to our office, and we find it filled with articles interesting alike to the ethnologist and the lovers of general science. "It is designed to make it a storehouse of original articles in every branch of science, and especially a registry of original researches in scientific matters in Vermont." We shall quote from its pages as opportunity offers.

SIR FRANCIS CROSSLY, an English millionnaire, has given £200,000 to certain medical charities, with the singular condition that it shall be perpetually invested in United States securities.—*Med. Record.*

Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 1, 1870.

THE ANGLO-AMERICAN AMBULANCE IN THE EUROPEAN WAR.

SOME weeks ago we published portions of a letter, from Drs. Evans and Crane, on the organization of the American Ambulance. We had hoped to give our readers occasional information of the operations of this Society; the exigencies of the war, however, have shut us off from communication with either of these gentlemen, and the information we have been able to glean is but fragmentary. We are glad, however, to find in the Medical Times and Gazette reports from Drs. Sims and McCormac, from which we make extracts.

"The Anglo-American Ambulance has a little history of its own. The Americans in Paris appointed a committee at the beginning of the war to organize an ambulance. This committee invited me to select a staff of American Surgeons for this purpose. I accepted the invitation and organized the staff. When we reported ourselves ready to go forward to the seat of war, the committee suggested that we should set up our tents in Paris, and await the coming of the Prussians. The Surgeons unanimously opposed this proposition, insisting that our organization was for the purpose of giving aid and succor to the sick and wounded on or near the field of battle. The committee was obstinate—the surgeons no less determined—hence a split, and the American Surgeons dissolved their relations with the American committee, and formed a union with Dr. McCormac, Dr. Frank, Dr. W. Webb, and other English friends, under the title of the Anglo-American Ambulance. We then went to the French Société de Sécours aux Blessés, in the Champs Elysées, where our services were at once accepted." * * * * *

"I was made Surgeon-in-Chief, and Dr. McCormac was placed next in command. Dr. W. Webb was *comptable*, which includes the functions of commissary and paymaster. Thus organized, we left Paris on Sunday night, August 28th, with orders to report at Mézières. We arrived there on Monday night, and on Tuesday, the 30th, we came to Sedan, where we found the Caserne d'Asfold already converted into a Hospital, which the mayor gladly turned over to our use, and we took possession of it on the 31st. We had barely entered its grounds when the roar of cannon announced the battle of that date. At night most of us repaired to the battle-field; many of the wounded were transported to our Hospital at Sedan, but many more, too severely wounded to be transported, were housed in the village of Balan. Several urgent operations were performed that night by McCormac and Frank."

The good fortune which placed Dr. Sims in charge of the Hospital at Sedan enabled the Anglo-American Ambulance to render services, such as no other ambulance in either army had been in a position to perform during the war. The number of patients treated by them was 1193; of these the total number of deaths was 117. Considering the circumstances under which they were placed, Dr. McCormac thinks, and justly, as we believe, that this death rate is small. He attributes the good results obtained to open windows, and the liberal use of carbolic acid. Of the number of deaths, 30 patients succumbed to pyæmia.

Dr. Sims says, "Without invading the province of Dr. McCormac's report, I may mention the fact that we never used the tourniquet at all; hence our patients lost but little blood during operations, and we never had a case of secondary hæmorrhage, which is remarkable, considering the number of operations, and the seeming haste with which they were sometimes done." * * *

"Free ventilation by open windows is not the plan in general use in French Hospitals. About ten days after the battle of the 1st, all the ambulances and Hospitals in Sedan and its neighborhood were visited and inspected by a committee of French Surgeons. As they entered ward No. 1, in our Hospital, they saw twenty-four poor wounded soldiers, twelve on each side, the windows at each end of the ward widely open, with the wind blowing freshly through. They stopped a moment, looked a little surprised, shuddered, but said nothing. On entering ward No. 2, they found the same state of things, and immediately called out "*fermez les fenêtres.*" It was explained to them that our only hope of preventing purulent infection was free ventilation. They declared that we would endanger the lives of our patients by the *courants d'air*, which would produce pneumonia and local congestions. As each of us held such opposite views on the subject of ventilation, under existing circumstances, the inspection here ended, and the high officials turned and retraced their steps.

"We have had several cases of tetanus (six or seven), and it at one time occurred to me that our free ventilation might have predisposed to it. But, on inquiry, I find that it was relatively more frequent in other ambulances, both French and German, than it was in ours, and I am now satisfied that our open windows had no special influence in producing it."

Dr. McCormac speaks of the kindly and harmonious feeling existing throughout the corps, and, though over-tasked, and exposed to the privations which so many of our own number remember as consequent on life in the field, they accomplished a large amount of earnest work in the cause of humanity.

Referring to Dr. Marion Sims, he says:—"I cannot sufficiently express my recognition of the active, invaluable assistance rendered by Dr. Sims. He was little short of omnipresent, and his thoughtful, kindly counsel was appreciated, as it ought to be, by everyone."

PERSONALITIES OF MEDICAL JOURNALISM.

Many of our readers have undoubtedly heard that the London *Lancet*, during its early history, adopted a system of deliberate personal abuse for the purpose of increasing its circulation. The following paragraph is from a paper entitled "Autobiographical Recollections of the Profession, by J. F. Clarke, M.R.C.S.; for nearly forty years on the Editorial Staff of the *Lancet*," and recently published in the London Medical Times and Gazette.

"The Medical press was, previous to the establishment of the *Lancet*, conducted, at all events, with a gentlemanly spirit, and with becoming deference to professional opinions and views. It was in many instances tame, but, as a rule, not ill-informed and had scrupulously avoided all *personal* matters. Such a thing as a nickname was unheard of. It remained for the *Lancet* to introduce into medical journalism an element which has caused more heart-burning and quarrels than any other could possibly have done. This was the system of personal attack and calling of nicknames. * *

"Not satisfied with criticizing in no friendly spirit the doings and writings of eminent men, he (Wakley) attacked them personally: called hospital surgeons "bats" and Scotch doctors "dubs." He abused them in a spirit of ridicule, and often attached nicknames to them which were galling and offensive. One was an "owl," another a "cock sparrow," another an "oyster," and so on; indeed, these are among the mildest of the nicknames used. The adjectives employed were often of the most offensive kind. In short, the *Lancet*, as the representative of medical literature, was sunk so low that it was only to be classed with the very lowest of the political prints of the day. At this time the medical press had obtained an unenviable notoriety for its personal abuse, and the low morals which it manifested. * * *

"How far ridicule and satire are fair weapons of offence and defence in public questions is a point I shall not undertake to decide. They are powerful agents, no one will deny; but they ought to be handled by a master. Compare the attacks of Junius, or even of Wilkes, with those of Cobbett and Wakley—what a difference!"

Superiority of American Surgery.—We make two extracts from the columns of *The Nation:* one from the letter of an American Surgeon, now at the seat of war in Europe; the other from the editorial columns. Our own careful observation, three years ago, warrants us in confirming the views expressed:

You will perhaps allow me a few words on German operative surgery and surgical appliances as compared with those of our own country. The Germans are pre-eminent in deep investigation, skilful theorizing, and thorough information; but I endeavor to be perfectly candid when I say I have seen nothing which led me to think less highly of the surgeons and the surgery of America. One who has seen and studied practical surgery in any of the chief American cities will look in vain for the order, the skilful manipulation, the rapidity and brilliancy to which he is accustomed at home; and these are not compensated for by any diminution of the sufferings of the patient or increase in his safety. The operating-room, during the performance of an operation, is a sort of Babel. The preliminaries do not seem to have been arranged, the instruments are beyond the reach of the operator, and no one person is charged with the duty of handing them. When he calls for an instrument, several of the bystanders simultaneously attempt to comply with his request. Those who look on discuss the various steps freely and in loud tones, and offer any suggestions that occur to them. Their instruments, though made of far finer material than we get in America, are clumsy in appearance and construction, and awkward for the hand. The American models of the more common instruments exceed them by far in elegance and neatness. They know little concerning many convenient, ingenious, and tidy contrivances which are considered indispensable in England and America; and it is amusing to see the lofty indifference with which they listen to any suggestion of the possibility of methods or apparatus superior to their own; for there is in the average German disposition the least perceptible leaning toward illiberality when other countries, as compared with Germany, are in discussion. A comparison of the hospital wards of the two countries in the respects of convenience, neatness, and order, would result favorably, I am certain, for America. Indeed, they concern themselves little about externals in surgical matters, while these necessarily engage the first attention of the observer; and for this reason this first impression is the most unfavorable; yet, if one looks more closely and studies a little deeper he finds that the essentials are never neglected, and that the *results* are perhaps all that could be expected."

"The letter of an American surgeon, which we print elsewhere, is in the line of other testimony from abroad as to the superiority of American surgery. An eminent professor in Dublin, some time ago, referred to the reports of several successful cases of amputation of the hip-joint, published by our War Department, in a specimen number of a projected 'Medical and Surgical History of the War,' and then quoting from McLeod's 'Surgical History of the Crimean War,' in which there was not a single successful case of this character, paid a glowing compliment to the boldness and skill of American operators. Professor Billroth, the first surgeon and pathologist of Vienna, in a late lecture to his class, when speaking of œsophagotomy (cutting open the œsophagus for the removal of a foreign body), said it was an operation which had never yet been successfully performed. But the next day, having been shown authentic reports of several cases in which the operation had been performed by Dr. Cheever, of Boston, with complete success, he publicly took back what he had said, and stated what had been done by the Boston surgeon, adding, 'here again, gentlemen, we are indebted to our American brethren for important advances in our profession.' When Professors Gross and Pancoast visited Berlin, a short time since, they were received with the most distinguished respect and hospitality. The former was introduced by Professor Virchow to the class, and consulted with in regard to an operation by Professor Langenbeck; the latter was urged by Professor Graefe to operate on some eye-cases, in order to give the students an opportunity of witnessing the different methods. His operation for the resection of the trifacial nerve excited much admiration."

Explosive Bullets.—The contributor to the *Times* of the 4th inst., who described the experiments lately tried in Messrs. Winckley and Shaw's yard, Blackfriars, for the purpose of comparing the results of explosive and plain bullets, observes that "humanity forbids killing when wounding would answer the purpose. Explosive bullets of small size are considered to be as barbarous as killing the unresisting wounded." There is, however, another view of the question which presents the use of such missiles in an impolitic light, and which may probably afford a stronger motive than even humanity dictates for not employing them. "Dead men tell no tales," and dead men require no ambulance, hospital treatment, or food. The wounded, after an engagement, who must either be carried off the field or left to fall into the hands of the enemy, contribute one of the greatest causes of anxiety and embarrassment to the commander of an army either in retreat or advance, of which source of solicitude he would be entirely relieved were each bullet on reaching its "billet" to produce a fatal result. So that the use of explosive bullets on both sides, although immensely and unnecessarily increasing the loss of life, might actually aid towards the movements of the enemy.

Four experimental shots were fired from an ordinary revolver by Mr. Adams on the occasion referred to. 1. An explosive bullet was discharged into the head of a horse. Complete death was instantaneous. There was only one report, but a little blue smoke curled out of the wound. The bones of the head were shattered; the brain was utterly destroyed, presenting merely a disorganized pulp; and where the bullet lodged at the back of the head there was a cavity seven inches long by six inches broad. 2. Another horse was killed by a plain bullet in the head. The bones were not shattered, and the brain was comparatively uninjured; and, although the animal dropped immediately, the subsequent quivering of the limbs showed that death was not so instantaneous as it had been in the other instance. 3. An explosive bullet was discharged into the thorax of a dead horse. From the wound itself there was no smoke, but, on the chest being cut open, a considerable quantity issued forth. The bullet penetrated and shattered one of the ribs, and lodged in the opposite side, having produced immense laceration of lung tissue. The fourth experiment showed the comminuting effect of an explosive bullet when fired against bone. M. Purtuiset, a Frenchman, has devised the explosive powder, of which the composition, we understand, is not yet known; he claims for it perfect safety in use, but practical men are inclined to think that extensive experiments will be necessary to establish this point. Sportsmen in India have, we know, been for some years past in the habit of using, for large game, a conical bullet, hollow at the apex, and charged with a mixture of equal parts of chlorate of potass and black sulphuret of antimony. The effects have been described to us as having been very similar to those observed in the experiments above noticed.—*London Med. Times and Gazette.*

THERAPEUTICAL ACTION OF COLD AFFUSIONS IN TYPHOID FEVER.—M. De Lambert, who has lately written at length on this subject, has arrived at the following conclusions:—

1. Cold affusions are especially advantageous in typhoid, and the eruptive fevers.
2. They act on the principal and most constant phenomenon in these diseases, namely, the elevation of the temperature by diminishing it. They are, consequently, in the highest degree, anti-pyretic. They bring down the temperature from 0·5° to 3·0° (centigrade).
3. They favor the restoration of a full, deep, and regular respiration.
4. They stimulate the peripheral circulation by strong and rhythmical contractions of the capillary vessels, contractions caused by reflex action.
5. They stimulate all the physiological secretions.
6. They restore to the skin its suppleness, its moisture, and its healthy color.
7. They, in general, favor the appearance of the eruption, and recall it when it has disappeared.
8. They calm cerebral agitation in awaking activity of the cerebral circulation; they suppress delirium, coma, and lessen prostration.
9. They cause a general feeling of comfort, which allows the patient to sleep quietly.
10. They diminish the frequency of the pulse by 8 to 20 or 30 beats.
11. They relieve headache.
12. Their anti-pyretic action lasts from two to six or eight hours.
13. They should, as a rule, be repeated from two to four times in twenty-four hours.
14. They are specially indicated in the severe cases of typhoid fever, or of one of the malignant eruptive fevers.
15. They do not influence the duration of these diseases, but render them lighter, or lessen their severity.
16. They are not indicated in all cases of these diseases without exception; they do not, therefore, constitute a general method of treatment to the exclusion of all other concomitant therapeutical means.
17. They may be advantageously associated with application of cold bandages, or with the employment of cold lotion.
18. Their application is easy, and is not attended by untoward results to the patient.
19. Their methodical and rational employment is based on the principles of clinical physiology.—*Med. Press & Circular.*

TRANSFIXION OF THE RIGHT SIDE OF THE CHEST BY A LANCE.—There is now a patient at the Royal Victoria Hospital, Netley, laboring under aortic disease, who has recently recovered from the following remarkable lance-wound. He is a soldier of the 5th Royal Irish Lancers, and, on the 1st of April, 1869, at Lucknow, was mounting his horse, when the animal reared on its hind legs. The butt of the lance was thrown forward and touched the ground, while the point of the weapon, unobserved by the man, was brought opposite to the lower part of the right side of the chest. Under these circumstances the horse plunged forward, and the lance passed through the chest. The point entered over the cartilage of the 7th rib, and came out, together with 22 inches of the shaft, through the fossa infra-spinata of the scapula, one inch and a quarter from its vertebral margin, and an inch and a half below the spine of the bone. No sooner had this occurred, than the horse bolted, and it was not until he had gone about 120 yards, that the man, grasping the lance with his right hand to take the drag off the chest, and reining up the animal with his left hand, was able to bring him to a standstill. As soon as the horse stopped, the man threw himself off, and in the act of falling to the ground the lance became partially broken or split up at the part which was close to the front wall of the chest. This added to the difficulty of extraction. The lower heavy part of the lance was first sawn off, and then about twenty inches of the part protruding beyond the scapula; the part within the chest was subsequently withdrawn by the aid of strong pincers. There was not much hæmorrhage, and the man made an excellent recovery. The right side of the chest expands well, and, with the exception of loss of respiratory murmur and increased resonance over a limited space about the wound of entrance, the chest-sounds on this side are normal. The heart-disease was first noticed while he was under treatment for the wound just described. The length of the lance used by the 5th Lancers is nine feet three inches, and its weight is four pounds and a half.—*British Med. Journal.*

On the Movements of the Intestines.—In order to investigate the movements of the intestines, MM. Legros et Onimus employed a sound to the extremity of which a caoutchouc ball was attached. This was introduced through an intestinal or gastric fistula, and the movements of the alimentary canal, at the point where the ball was situated, rendered legible by a manometer to which a graphic apparatus was attached. In the majority of cases the ball was introduced through a small opening in the abdominal wall, but in some cases the intestine was exposed. In the former case the ball was subjected to the pressure of the abdominal walls and the diaphragm, the latter exhibiting itself in the form of regular respiratory variations of pressure, which were easily recognizable from the much slower variation in pressure produced by the peristaltic action of the intestine itself. For the purpose of producing electrical excitation of the gut, wires were so connected with the sound that the caoutchouc ball lay between the opposite electrodes, or the current was passed from the fistulous orifice to the trachea, or in the opposite direction to the anus, according to whether the ball was placed in the upper or lower section of the intestine. In similar manner the spinal cord, splanchnic nerves and mesenteric nerves were excited. The following general conclusions were arrived at. Contractions occurred at regular intervals, propagated peristaltically, or rarely anti-peristaltically, which were interrupted from time to time by long periods of rest. Still more rarely, a certain portion of the canal became contracted. Contractions succeeded to one another more rapidly at the upper extremity of the intestine than at the lower. The movements of the large intestine are different in degree, duration and form from those of the small intestine. The movements of the stomach are not so regular and uniform as those of the intestine, and those of the pylorus differ in their characters from those of the cardiac extremity. Suppression of the current of arterial blood increases the activity of the peristaltic movements; but this effect is not produced by interruption of the venous current. The passage of induction currents conducted immediately through the gut causes contraction at the point where the electrodes are applied, but relaxation in the interspace between them. Constant currents cause the peristaltic movements to cease, and occasion diminished pressure (i. e., relaxation) on the caoutchouc ball, when they are passed in the normal direction of the movements; but when passed in the opposite direction they produce augmented pressure (i. e., contraction) on the ball. Irritation of the spinal cord by means of a constant current causes at first a few movements to occur, followed by a quiescence. Excitation of the splanchnic nerves with induction currents increases the tension of the air in the caoutchouc ball, but induces no movements; the application of constant currents occasions peristaltic movements. Similar excitation applied to the mesenteric nerves is followed by the same result. Excitation of the central extremity of the vagus divided in the neck stops in the intestinal movements, and diminishes the tension. Excitation of the peripheric extremity is followed by no effect. Constant currents applied to the vagus scarcely have any influence on the intestine, but stop all movements of the stomach. Mechanical excitation applied immediately to the gut causes relaxation, which is followed by vigorous contraction. Ice-water causes contraction; warm water, or solution of common salt, increases the activity of the movements, as do also croton oil, ipecacuanha, the small doses of atropia; morphia renders them slower. Strychnia causes contraction of the intestine coincidently with the general convulsions.—*Lancet.*

ALTERATION IN THE URINE FROM THE USE OF CARBOLIC ACID. BY J. A. WALDENSTRÖM.—Although this remedy has for a long time been used at the Academical Hospital in all forms of suppuration, with a view to checking decomposition of the pus, in three cases only did the urine exhibit any change which could be ascribed to the action of the carbolic acid. The first patient came in with a gangrenous phlegmon in the entire of the right leg. The largest portion of the skin and subcutaneous areolar tissue had sloughed away, so that it was possible to see the soleus muscle almost from its origin to its insertion. To arrest decomposition of the pus, the diseased bone inside the moist warm dressing was enveloped with a piece of lint dipped in the ordinary carbolic acid oil. In consequence of the nature of the affection, and of the patient's advanced age, the prognosis was very bad, and when, after the lapse of eight days, simultaneously with the complete separation of the dead areolar tissue, the urine assumed a dark-red color, the case was regarded as hopeless. It was reasonable to suppose that the change in color had its origin in a resolution of the blood, but, notwithstanding the employment of all the chemical reagents, its presence could not be detected in the urine, which was clear and of a strongly acid reaction. On Professor Almén, who kept the urine for closer examination, informing me that it contained carbolic acid in large quantity, I intermitted the use of the solution of the acid in question for a day, when the urine resumed its normal appearance; but as soon as the carbolic acid was again employed, the dark-red color returned. The advantage of employing carbolic acid (for preventing decomposition of the pus, and so the occurrence of septicæmia), and the possible injury from it (in producing a nephritis) made me doubtful whether I should desist from the use of it, or not. However, it was tried for some days longer, but the pieces of lint were first wrung out in a dry towel before they were laid upon the sore, and as soon as this precautionary measure was adopted, the urine preserved its normal color.

The second patient resembled the one just spoken of in every particular, not only as regarded the seat of the complaint and its extent, but also in respect to the behavior of the urine in relation to the greater or less quantity of carbolic acid which was used in the dressing. The third case was a middle-aged woman, with a very extensive periostitis in the right thigh. The pus that escaped on incision was thin, blood-colored, and easily underwent decomposition. The suppuration in the large cavity was profuse and of a fœtid character. With a view to check decomposition of the pus, as much as two tea-spoonfuls of a solution in oil of the acid was one day injected into the cavity, the latter having been previously rinsed out with water containing carbolic acid. The consequence was, the next day the urine possessed a tarry color. Some days later, when the urine had regained its usual appearance, the same injection was repeated with a precisely similar result. The urine was then more closely examined and was found to contain both albumen and the coloring matter of the blood. The latter had already disappeared next day, but the albumen continued, although in small quantity, for a few days. Death occurred as a consequence of septicæmia. A similar transitory presence of albumen in the urine was also observed in a patient who used carbolic acid internally for a syphilitic cutaneous eruption.

From what has been stated we see then that carbolic acid is not as harmless as it is often represented to be. Separated by the kidneys, it acts as an irritant on these organs and may give occasion either to an hyperæmia alone, or to a parenchymatous inflammation, which is not an unimportant complication of the other affections, even if they are not so serious. Neumann's investigations on the action of carbolic acid on dogs poisoned therewith, also show that a considerable fatty degeneration in combination with a molecular breaking-up of the cells of the liver, hyperæmia of the kidneys with a turbidity and separation of the epithelium in the urinary passages are the changes constantly met with on *post-mortem* examination.

This obliges us to take the greatest precautions in the use, whether internal or external, of carbolic acid, and frequently to examine the urine in order to be able instantly to withhold it on the occurrence of a state of renal irritation. In solution in oil, too, carbolic acid appears to be more readily absorbed than in an aqueous solution, so that we should, in affections such as the two first brought forward, where the acid comes into direct contact with a large granulating surface, prefer the latter form to the former in using it; unless it be made weaker than usually employed (one part in six to eight).

The cause of this altered color of the urine, which is met with only in the external use of the remedy, we do not know with certainty, but it probably depends on the presence of some unknown oxidized products of carbolic acid. It may be assumed that this oxidation takes place prior to the absorption of the acid, because, otherwise, we should find the alteration in color of the urine in cases of its internal use also.—*Med. Press and Circular.*

DECOMPOSITION OF CHLOROFORM. By E. C. A. BILTZ, of Erfurt.—The assertion of Dr. Hager (this Journal, page 319) that chloroform prepared from pure chloral hydrate, is not decomposed by light and air, is not correct. This so-called normal *chloroform is decomposed as readily as any other if it be absolutely free from alcohol.*

From ½ kilogramme of pure chloral hydrate I obtained 296 grm. chloroform, sp. gr. 1.498 at 15° C. (the theoretical yield is 306 grm., sp. gr. 1·502); it was very pure, entirely indifferent to sulphuric acid, but still contained some alcohol, to remove which it had to be washed six times with water. It was then dehydrated and rectified, when it had the sp. gr. 1·5019 at 15° C., a boiling point of 62·27° C., and was entirely indifferent to iodide of potassium. Exposed in a half filled white vial to the daylight, it showed, after ten hours, a reddish tinge with solution of iodide of potassium.[*] On the evening of the second day strong decomposition of this solution, and so on as previously described by me.[†]

This proves that chloroform prepared from chloral hydrate is prone to decomposition. How the stability of Hager's chloroform agrees with its sp. gr. and boiling point I am unable to say; however, he might have satisfied himself by comparative experiments, that his tests for alcohol, in this case, are partly entirely useless, partly very difficult. Lieben's excellent test (iodoform) is the only one which, with the aid of the microscope, approaches mine[‡] in delicacy; all others indicate at best ½ per cent., while in our case ⅛ per cent. and even less is of importance. I do not doubt, therefore, that Hager's chloroform still contains such traces of alcohol, and that it will yet decompose in the course of time.

I would again refer to my former paper on this subject, particularly to the proof that the officinal chloroform does not contain sufficient alcohol to prevent its decomposition. The final sentence in Hager's paper (p. 319 of this Journal) must, therefore, be rejected. As long as the officinal chloroform does not contain at least 2 to 3 per cent. of alcohol it must be kept and dispensed in black bottles, to guard against gradual decomposition in the light. And this is not altered in the least by preparing the chloroform from chloral.—*Pharm. Zeitung*, from *American Journal of Pharmacy.*

MARRIAGE AMONG PHTHISICAL PATIENTS.—Dr. Hartsen has published, in Virchow's *Archiv*, (vol. 49, 1870), an article in which he brings forward various arguments wherewith he seeks to prove that marriage should not be given up by persons affected with phthisis pulmonalis. Upon this Virchow himself steps forward, and refutes, *seriatim*, the reasoning of Dr. Hartsen. He contends that young consumptive men have been known to die a few months after marriage; that tubercles, with them, develop rapidly in the testes, vas deferens, and prostate gland; that the issue will undoubtedly suffer from phthisis; that consumptive women are placed in similarly unfavorable circumstances; and that we are no more justified in advising marriage to phthisical patients than to those who carry in their organism the germ of insanity.—*London Lancet.*

INCOMPATIBILITY OF QUININE AND VERATRUM VIRIDE.—Dr. Bradly, of St. Mary's, Ohio, reports, that when a patient is under the influence of veratrum viride, it is highly dangerous to administer quinine. The effects are most alarming: immediate sinking and irregularity of the pulse, which, in some instances, reaches collapse. He ran great risk of losing three patients before he became aware of the actual cause.—*The Cincinnati Lancet and Observer.*

STEAMBOAT AMBULANCES ON THE RHINE.—Ten steamboats are on service as floating ambulances on the Rhine, from Mannheim to Dusseldorf. The Geneva flag floats at the topmast of each. The wounded are better located in these floating hospitals than they were before; but there is a want of medical aid in them.—*Medical Record.*

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[*] 1 absolutely neutral iodide in 20 water, freshly prepared.

[†] See Archiv der Pharmacie, 1868, June, 209.

[‡] 1 p. bichromate of potassa in 2000 water, mixed with one-eighth of its volume sulphuric acid. One volume of chloroform is well agitated with half a vol. of this mixture and set aside over night; disappearance of the yellow color proves the presence of alcohol.

Medical Miscellany.

Medical Benevolence.—Our cotemporary, the *Medical Times*, is in error in stating that the "New York Physicians' Aid Association" is the only one in this country having for its object the distribution of charity to needy members of the profession and their families. The Massachusetts Medical Benevolent Society was formed in 1857, and has been in successful operation ever since. It now numbers about 140 members. Any Fellow of the Massachusetts Medical Society in good standing may become a member on receiving the approval of the Council.

We are glad to welcome home again our old friend, Dr. Bowditch. His visit, he assures us, has been one of great pleasure. He passed most of his time abroad in the study of sanitary science, especially in reference to the condition of tenement houses, the sewage question and other matters, all of which he will present to the public in the report of the State Board of Health.

Hospital Appointment.—Dr. O. F. Wadsworth was appointed Associate Ophthalmic Surgeon of the City Hospital at a recent meeting of the Trustees of that institution.

Medical students will notice that after Dec. 1 the time for Dr. Blake's lectures on the Anatomy and Diseases of the Ear will be changed from Tuesday to Friday at 9 o'clock.

Compulsory Vaccination.—The Dublin *Medical Press and Circular* relates the case of a clergyman who was charged, at the Preston Police Court, on behalf of the Board of Guardians, with refusing to have a child vaccinated. The refusal was persisted in, because that some years before the defendant had lost a child by death after vaccination; and a neighbor's child, who was vaccinated with virus from his own, had also died. Similar facts, he stated, had also come to his knowledge; and he feared a like result would follow vaccination in this case. The bench decided that, the law being explicit, it was incumbent upon them to enforce it, but the penalty, under the circumstances, would be limited to a fine of 1*s*. and in default the defendant to be imprisoned one day. The reverend defendant declined to pay.

Hiccough.—Some time ago, under the title of "Sneezing," we published a very simple method of controlling it, by pressure upon the upper lip. We are glad to learn from so many different sources the success attendant upon our annotation. A correspondent directs our attention to the subject of hiccough—a most distressing and obstinate complaint to those in whom it occurs. We do not refer, of course, to the hiccough attendant upon great prostration of the system, and met in connection with *delirium*, or convulsions, or to hiccough the effect of debauchery, but to those instances, very frequent indeed, of a simple spasmodic condition of stomach and œsophagus which assails the individual without any other symptom of disease, and in the treatment of which antispasmodics prove inert. Our correspondent tells us that for a long term of years he has been invariably successful in affording relief to his patients by directing them to hold their arms straight above the head, and to keep inspiring as long as is feasible, so as to retain the air in the lungs for as long a period as possible. He considers the oxygen of the air acts as a stimulus in provoking the paroxysms, and that the carbonic acid in the unexpired air acts as a sedative in warding off the hiccough.—*Med. Press & Circular.*

New Pigment in Bile.—According to the *American Chemist*, M. Ritter has obtained a new coloring matter from the bile. This is a blue pigment which is insoluble in chloroform and acids, and to some extent resembles indigo. It is obtained from bile by first filtering it and next shaking it with chloroform. The solution thus obtained is next treated with a weak solution of caustic soda; and after having been neutralized with hydrochloric acid, applied in slight excess, the acid solution will contain the blue matter in a state of suspension.—*Mich. Univ. Med. Journal.*

To Correspondents.—Communications accepted:—Case of Empyema.—Foreign Bodies in the Air-Passages.

Pamphlets Received.—Transactions of the New Hampshire Medical Society (Eightieth Anniversary), held at Concord, June 21 and 22, 1870. Pp. 96.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending Nov. 26, 1870.

Cities and towns.	Total.	Prevalent Diseases Consumption.	Prevalent Diseases Typhoid Fever.
Boston	108	20	2
Charlestown	9	2	0
Worcester	16	2	3
Lowell	19	5	2
Milford	1	0	1
Chelsea	4	1	0
Cambridge	11	0	2
Salem	8	2	0
Lawrence	6	0	2
Lynn	11	3	1
Pittsfield	3	0	0
Fitchburg	8	1	0
Newburyport	5	0	0
Somerville	5	1	0
Fall River	10	7	0
Haverhill	7	1	1
Holyoke	7	1	1
	238	46	15

From all the above-named places there are reported fourteen deaths from pneumonia, twelve from croup and diphtheria, and eleven from scarlet fever. Holyoke reports four deaths from smallpox during the past two weeks.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Nov. 26th, 108. Males, 52; females, 56. Accident, 6—apoplexy, 1—inflammation of the bowels, 1—disease of bladder, 1—congestion of the brain, 1—disease of brain, 4—burned, 1—cancer, 1—"congestion," 1—cerebro-spinal meningitis, 1—croup, 3—cyanosis, 2—cholera infantum, 1—consumption, 20—convulsions, 3—debility, 1—diarrhœa, 2—dropsy 2—dropsy of brain, 2—diphtheria, 2—erysipelas, 2—scarlet fever, 4—typhoid fever, 2—disease of heart, 1—indigestion, 1—infantile, 4—disease of the kidneys, 2—laryngitis, 2—congestion of the lungs, 3—inflammation of the lungs, 5—marasmus, 5—mortification, 1—neuralgia, 1—old age, 5—paralysis, 5—premature birth, 1—peritonitis, 1—puerperal disease, 1—unkn'wn, 6.

Under 5 years of age, 32—between 5 and 20 years, 10—between 20 and 40 years, 13—between 40 and 60 years, 27—above 60 years, 16. Born in the United States, 77—Ireland, 27—other places, 4.